

Remarks

In view of the following discussion, the Applicants submit that none of the claims now pending in the application lack antecedent basis under 35 U.S.C. § 112 or are unpatentable under the provisions of 35 U.S.C. § 103. Thus, the Applicants believe that all of these claims are now in allowable form.

I. REJECTION OF CLAIM 13 UNDER 35 U.S.C. § 112

The Examiner has rejected claim 13 under 35 U.S.C. § 112, second paragraph as allegedly lacking antecedent basis for the limitation "said audio warning signal." In response, the Applicants have amended claim 13 in order to depend from claim 12, rather than from claim 11. As claim 12 recites the limitation of an audio circuit that "generates an audio warning signal," the Applicants submit that the amendment to claim 13 corrects this antecedent basis issue. As such, the Applicants respectfully request that the rejection of claim 13 under 35 U.S.C. § 112 be withdrawn.

II. REJECTION OF CLAIMS 10, 11, 13, AND 16 UNDER 35 U.S.C. § 103

A. Claim 16

The Examiner has rejected claim 16 under 35 U.S.C. § 103 as being unpatentable over Markwell et al. (US Patent 6,078,269, issued June 20, 2000, hereinafter referred to as "Markwell").¹ In response, the Applicants have amended independent claim 16 in order to more clearly recite aspects of the present invention.

Markwell teaches a battery-powered RF-interconnected sensor system. (See Markwell, Abstract) Specifically, Markwell teaches a wireless detector that is capable of communicating with other wireless detectors using RF communication. The detector may comprise a horn capable of emitting an audible alarm, where the pattern of the alarm/horn may be varied. However, Markwell does not teach that the pattern comprises a sweep frequency, as claimed by the Applicants.

¹ The Applicants note that the Examiner actually cited Markwell as having a patent number of 6,532,406 in Paragraph 4 of the Office Action. However, patent number 6,532,406 refers to a vehicle computer system by Schmedding et al. Applicants believe that the Examiner is actually referring to patent number 6,078,269 instead. As such, Applicants' response below is directed to Markwell 6,078,269.

The Examiner's attention is directed to the fact that Markwell fails to teach or suggest an alarm unit that utilizes an application specific integrated circuit (ASIC) for selecting an audio frequency for an audio warning signal, where the audio frequency is a sweep frequency, as positively claimed by Applicants in independent claim 16, which recites:

16. An alarm unit, comprising:
an audio circuit for generating an audio warning signal; and
an application specific integrated circuit (ASIC) coupled to said audio circuit, for triggering said audio warning signal, wherein said ASIC selects an audio frequency for said audio warning signal, wherein said audio frequency being a sweep frequency. (Emphasis Added)

In one embodiment, the Applicants' invention teaches that an ASIC may be utilized in an alarm unit. Utilizing ASIC has several exemplary advantages over prior alarm units such as reducing the number of components that are necessary to provide alarm tone frequencies. (See e.g., Applicants' Specification, Page 18) In one embodiment, the frequencies are implemented as sweep frequencies, where the alarm tone produces two cycles of each frequency specified, in accordance with a selected set of frequencies. For example, the tone starts at the highest frequency and after two cycles is decremented until the minimum frequency is reached, producing two cycles at each frequency. The frequency is then incremented until the maximum frequency is reached again producing two cycles at each frequency. This sweep frequency is then repeated as long as the alarm tone is enabled. (See e.g., Applicants' Specification, Page 18)

In contrast, Markwell fails to teach, show, or suggest an alarm unit that utilizes a sweep frequency. Nowhere does Markwell specify that the available alarm frequencies are sweep frequencies. Therefore, the Applicants respectfully submit that claim 16, as amended, fully satisfies the requirements of 35 U.S.C. §103 and is patentable thereunder.

B. Claim 10

The Examiner has rejected claim 10 under 35 U.S.C. § 103 as being unpatentable over Bechtel (US Patent 5,896,092, issued April 20, 1999, hereinafter referred to as "Bechtel") in view of Markwell and further in view of Park, et al. (US Patent 5,694,118, issued December 2, 1997, hereinafter referred to as "Park"). In response, the Applicants have cancelled claim 10 without prejudice. The Applicants therefore submit that the rejection of claim 10 is moot.

C. Claim 11

The Examiner has rejected claim 11 under 35 U.S.C. § 103 as being unpatentable over Bechtel in view of Markwell and further in view of Smith, et al. (US Patent Application Publication No. 2004/0169585, published September 2, 2004, hereinafter referred to as "Smith"). In response, the Applicants have cancelled claim 11 without prejudice. The Applicants therefore submit that the rejection of claim 11 is moot.

D. Claim 13

The Examiner has rejected claim 13 under 35 U.S.C. § 103 as being unpatentable over Bechtel in view of Markwell and further in view of Smith. In response, the Applicants have amended claim 13 in order to more clearly recite aspects of the present invention.

The Examiner's attention is directed to the fact that Betchel, Markwell, and Smith all fail to teach or suggest an alarm unit that utilizes an application specific integrated circuit (ASIC) for selecting an audio frequency for an audio warning signal, where the audio frequency is a sweep frequency, as positively claimed by Applicants in claim 13, which recites:

13. An alarm unit, comprising:
 - a flash circuit having a flashtube for generating a flash;
 - an application specific integrated integrated circuit (ASIC) coupled to said flash circuit, for triggering said flash; and
 - an audio circuit, coupled to said ASIC, where said audio circuit generates an audio warning signal, wherein said ASIC selects an audio frequency for said

audio warning signal, wherein said audio frequency being a sweep frequency.
(Emphasis Added)

As discussed above, Markwell fails to teach, show, or suggest an alarm unit that utilizes a sweep frequency. Nowhere does Markwell specify that the available alarm frequencies are sweep frequencies. Bechtel and Smith likewise fail to teach or suggest this feature. Therefore, the Applicants respectfully submit that claim 13, as amended, fully satisfies the requirements of 35 U.S.C. §103 and is patentable thereunder.

III. NEW CLAIMS

The Applicants have added new claims 18 and 19, which depend from claim 13 (which has been amended into independent form). The Applicants respectfully submit that claims 18 and 19 are allowable at least for the same reasons that claim 13 is allowable.

Conclusion

Thus, the Applicants submit that all of these claims now fully satisfy the requirements of 35 U.S.C. §112 and 35 U.S.C. §103. Consequently, the Applicants believe that all these claims are presently in condition for allowance. Accordingly, both reconsideration of this application and its swift passage to issue are earnestly solicited.

If, however, the Examiner believes that there are any unresolved issues requiring the issuance of a final action in any of the claims now pending in the application, it is requested that the Examiner telephone Mr. Kin-Wah Tong, Esq. at (732) 842-8110 so that appropriate arrangements can be made for resolving such issues as expeditiously as possible.

Respectfully submitted,

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Wall & Tong, LLP
595 Shrewsbury Avenue
Shrewsbury, New Jersey 07702



Kin-Wah Tong, Attorney
Reg. No. 39,400
(732) 842-8110